

**CLAIMS**

- 1 1. A data access and management system for a computer system, comprising:
  - 2 a. at least two data storage means (C1, C2, ..., Cn);
  - 3 b. at least one computer unit (CL) which accesses the data of the data storage means
  - 4 (C);
  - 5 c. data transmission means (N) for a data transmission between the data storage
  - 6 means (C) and the computer unit (CL), with the data being stored in a redundant manner in at
  - 7 least two of the at least two data storage means (C); and
  - 8 d. means for the detection of prespecified parameters of the data transmission
  - 9 between the data storage means (C) and the computer unit (CL), with data being
  - 10 preferably stored in a redundant manner in the data storage means (C) as a
  - 11 function of the determined prespecified parameters, and with the computer unit
  - 12 (CL) accessing one of the data storage means (C) as a function of the determined
  - 13 prespecified parameters, the data storage means (C) comprising means for the
  - 14 detection of prespecified parameters for data transmissions between the data
  - 15 storage means (C) and the data storage means (C) shift data which is redundantly
  - 16 stored in the system independent of an access of the computer unit (CL) as a
  - 17 function of the determined parameters of data transmissions between the data
  - 18 storage means (C).
- 1 2. A data access and management system as recited in claim 1 wherein the data storage
- 2 means (C) each comprise control units for controlling the data access and the data management.
- 3
- 4 3. A data access and management system as recited in claim 1 wherein the data storage
- 5 means (C) copy redundantly stored data in the system among each other as a function of the
- 6 determined parameters of data transmissions between the individual data storage means (C) and
- 7 the computer unit (CL) and delete the data in the data storage means (C) in which it had been
- 8 stored beforehand.

1 4. A data access and management system as recited in claim 1 wherein the data storage  
2 means (C) process the stored data independent from the computer unit (CL).

1 5. A data access and management system as recited in claim 1 wherein the data in the  
2 system is divided into data subsets (F), and the data storage means (C) are divided into cells (Z)  
3 in such a manner that data subsets (F) to be stored in a redundant manner are stored in one each  
4 of the cells (Z) of the corresponding data storage means (C).

1 6. A data access and management system as recited in claim 5 wherein the data storage  
2 means (C) are divided into cells (Z) depending on data transmission parameters.

1 7. A data access and management system as recited in claim 5 wherein each cell (Z) com-  
2 prises additional data for data access and data management which relates to the parameters of  
3 data transmissions between the individual data storage means (C) and the computer unit (CL),  
4 and/or neighbouring cells (Z), and/or cells (Z) which comprise data which is stored in the system  
5 in a redundant manner.

1 8. A data access and management system as recited in claim 5 wherein the cells (C)  
2 interchange data among each other which is used for the data access and the data management.

1 9. A data access and management system as recited in claim 5 wherein the parameters of  
2 data transmission between the individual data storage means (C) and the computer unit (CL) are  
3 identical for the cells (Z) of a data storage means (C).

1 10. A data access and management system as recited in claim 1 wherein the computer unit  
2 (CL) outputs data for storage in the data storage means (C) and/or processes data stored in the  
3 data storage means (C).

1 11. A data access and management system as recited in claim 1 wherein the computer unit  
2 (CL) is connected with a user (B) for transmitting the received data and/or for control by the user  
3 (B).

1 12. A data access and management system as recited in claim 11 wherein the user (B) is a  
2 personal computer and/or a central processing unit of a computer and/or an additional data  
3 storage means.

1 13. A data access and management system as recited in claim 1 wherein the computer unit  
2 (CL) is a system which provides Internet services.

1 14. A data access and management system as recited in claim 5 wherein the computer unit  
2 (CL) immediately accesses individual cells (Z) of the data storage means (C).

1 15. A data access and management system as recited in claim 1 wherein the prespecified  
2 parameters of data transmissions between the individual data storage means (C) and the  
3 computer unit (CL) comprise the duration of the transmission, and/or the fault rate, and/or the  
4 duration of data processing operations of the individual data storage means (C) prior to the  
5 transmission of the data.

1 16. A data access and management system as recited in claim 1 wherein the data transmission  
2 means (N) comprise electrically conductive connections, and/or bus systems, and/or computer  
3 networks, and/or wired or wireless (mobile) telephone networks, and/or the Internet.

1 17. A data access and management system as recited in claim 1 for use with a database  
2 system or a computer structure which manages data by means of the data access and  
3 management system.

1 18. A data access and management system as recited in claim 1 for use in a system for a  
2 computer game which is provided via the Internet.

1 19. A data access and management system as recited in claim 18 wherein at least one  
2 computer unit (CL) is an Internet service provider.

1 20. A data access and management system as recited in claim 18 wherein the computer game  
2 is an interactive computer game to be used by at least two users (B).

1 21. A data access and management system as recited in claim 20 wherein each user (B) is  
2 connected with one computer unit (CL) each.

1 22. A data access and management system as recited in claim 20 wherein the computer units  
2 (CL) transmit data for the execution of the computer game to the respective users (B).

1 23. A data access and management system as recited in claim 22 wherein the users (B)  
2 process the received data for executing the computer game and transmit it back to the  
3 corresponding computer units (CL).

1 24. A data access and management system as recited in claim 18 wherein additional means  
2 are provided for the detection of prespecified parameters of the data transmission between the  
3 computer units (CL) and the respectively connected users (B).

1 25. A data access and management system as recited in claim 24 wherein the prespecified  
2 parameters of data transmissions between the computer units (CL) and the respectively  
3 connected users (B) comprise the duration of the transmission, and/or the fault rate, and/or the  
4 duration of data processing operations of the individual computer units (CL) and/or the  
5 individual users (B) prior to the transmission of the data.

1 26. A data access and management system as recited in claim 24 wherein the data for  
2 executing the computer game is also stored in a redundant manner as a function of the  
3 determined prespecified parameters of the data transmission between the computer units (CL)  
4 and the respectively connected users (B).

1 27. A data access and management system as recited in claim 18 wherein the computer units  
2 (CL) receive control for the execution of the computer game from the respective users (B).

1 28. A data access and management system as recited in claim 27 wherein the computer units  
2 (CL) output the control data or equivalent data to the data storage means (C).

1 29. A data access and management system as recited in claim 27 wherein the computer units  
2 (CL) process data for executing the computer game depending on the control data, and/or the  
3 data storage means (C) process data for executing the computer game, depending on the control  
4 data or on data equivalent to the control data.

1 30. A method for data access and data management for a computer system, comprising:

- 2 a. storing data in at least two data storage means (C);
- 3 b. accessing the stored data by at least one computer unit (CL) via data transmission
- 4 means (N), with prespecified parameters of the data transmission between the data
- 5 storage means (C) and the computer unit (CL) being determined, the data being
- 6 stored in a redundant manner in at least two of the at least two data storage means
- 7 (C) as a function of the determined parameters of the data transmission, the access
- 8 to the data being effected as a function of the determined parameters of the data
- 9 transmission
- 10 c. detecting prespecified parameters for data transmissions between the data storage
- 11 means (C), and
- 12 d. shifting redundantly stored data independent of an access of the computer unit
- 13 (CL) to the data as a function of the determined parameters of data transmissions between the
- 14 data storage means.

1 31. A method for data access and data management as recited in claim 30 wherein the data  
2 access and the data management are controlled by the data storage means (C).

1 32. A method for data access and data management as recited in claim 30 further including  
2 the steps of copying redundantly stored data among each other by the data storage means as a  
3 function of the determined parameters of data transmissions between the individual data storage  
4 means (C) and the computer unit and deleting in the data storage means in which the copied data  
5 had been previously stored.

1 33. A method for data access and data management as recited in claim 30 further including  
2 the step of processing the data by the data storage means (C) independently of the computer unit  
3 (CL).

1 34. A method for data access and data management as recited in claim 30 further including  
2 the step of dividing the data into data subsets (F), with the data subsets (F) to be stored in a  
3 redundant manner being stored in cells (Z) of the individual data storage means (C).

1 35. A method for data access and data management as recited in claim 30 wherein the  
2 division into data subsets (F) and the storage in the cells (Z) are carried out as a function of the  
3 data transmission parameters.

1 36. A method for data access and data management as recited in claim 30 wherein additional  
2 data for data access and data management is stored in the cells (Z), which relate to the para-  
3 meters of data transmissions between the individual data storage means (C) and the computer  
4 unit (CL), and/or neighbouring cells (Z), and/or cells (Z) which comprise the data redundantly  
5 stored in the system.

1 37. A method for data access and data management as recited in claim 34 wherein additional  
2 data for data access and data management are exchanged between the cells (Z) of the data  
3 storage means (C).

1 38. A method for data access and data management as recited in claim 30 wherein the access  
2 to data of cells (Z) of a data storage means (C) has identical data transmission parameters.

1 39. A method for data access and data management as recited in claim 30 wherein data is  
2 output by the computer unit (CL) for storage in the data storage means (C) and/or the data stored  
3 in the data storage means (C) is processed by the computer unit (CL).

1 40. A method for data access and data management as recited in claim 30 wherein data is  
2 transmitted by the computer unit (CL) to a user (B) and/or the computer unit (CL) is controlled  
3 by the user (B).

1 41. A method for data access and data management as recited in claim 30 wherein the  
2 method provides Internet services.

1 42. A method for data access and data management as recited in claim 34 wherein the access  
2 is made directly to the data of individual cells (Z) of the data storage means (C).

1 43. A method for data access and data management as recited in claim 30 wherein the  
2 determination of the prespecified parameters of data transmissions between the individual data  
3 storage means (C) and the computer unit (CL) comprises the determination of the duration of the  
4 transmission, and/or the fault rate, and/or the duration of data processing operations of the  
5 individual data storage means (C) prior to the transmission of the data.

1 44. A method for data access and data management as recited in claim 30 for use with a  
2 database system or a computer structure which manages data by means of said method for data  
3 access and data management.

1 45. A method for data access and data management as recited in claim 30 for use with a  
2 computer game which is provided via the Internet and in accordance with said method for data  
3 access and data management.

1 46. A method for data access and data management as recited in claim 30 wherein the access  
2 to data in the data storage means (C) comprises the employment of an Internet service provider  
3 which operates as a computer unit (CL).

1 47. A method for data access and data management as recited in claim 45 wherein at least  
2 two users (B) access the computer game, the computer game being an interactive computer  
3 game.

1 48. A method for data access and data management as recited in claim 47 wherein the data  
2 for executing the computer game is transmitted from the computer units (CL) to the respective  
3 users (B).

1 49. A method for data access and data management as recited in claim 48 wherein the data  
2 received by the users (B) are processed by the users (B) and transmitted back to the  
3 corresponding computer units (CL).

1 50. A method for data access and data management as recited in claim 45 wherein  
2 prespecified parameters of the data transmission between the computer units (CL) and the  
3 respected users (B) connected therewith are determined.

1 51. A method for data access and data management as recited in claim 50 wherein the  
2 determination of the prespecified parameters of data transmissions between the computer units  
3 (CL) and the respective users (B) connected therewith comprises the determination of the  
4 duration of the transmission, and/or the fault rate, and/or the duration of data processing  
5 operations of the individual computer units (CL) and/or the individual users (B) prior to the  
6 transmission of the data.

1 52. A method for data access and data management as recited in claim 50 wherein the  
2 redundant storage of the data for the execution of the computer game is also be carried out as a



function of the determined prespecified parameters of the data transmission between the computer units (CL) and the respective users (B) connected therewith.

53. A method for data access and data management as recited in claim 45 wherein control data for the execution of the computer game is additionally transmitted by the users (B) to the corresponding computer units (CL). Preferably, the control data or equivalent data from the computer units are also transmitted to the data storage means.

54. A method for data access and data management as recited in claim 53 wherein the control data or equivalent data is transmitted from the computer units (CL) to the data storage means (C).

55. A method for data access and data management as recited in claim 53 wherein the data for executing the computer game is processed by the computer units (CL) as a function of the control data and/or the data for executing the computer game is processed by the data storage means (C) as a function of the control data or of data equivalent to the control data.